

CLAIMS

1. An interface in a Radio Base Station for transmission and reception of user data to and from one or more user equipments in a radio communication network,
5 c h a r a c t e r i s e d i n
a plurality of links having a minimised bandwidth for carrying data independent of the functionality of the radio access network and the airborne radio transmission,
2. The interface according to claim 1 comprising one or more
10 user data links for uplink and downlink, a control and supervision link, and a synchronisation link.
3. The interface according to claim 1 or 2 intended for carrying baseband signals comprising digital signal components that describe the airborne signal.
- 15 4. The interface according to claim 3 wherein the user data link transfers the downlink user data as symbols and the uplink user data as sampled symbols.
5. The interface according to claim 2 wherein the user data link carries information about stream identity for routing
20 and/or supervision.
6. The interface according to claim 2 wherein the control and supervision link is split between a processor based link and fast indications.
7. The interface according to claim 6 wherein the fast
25 indications are used to determine the status of the radio transmission part when the processor based link has failed.
8. The interface according to claim 6 wherein an indication is used to reset the radio transmission part.

9. The interface according to claim 2 wherein the synchronisation link is used to control the transmission time of the user data link.
10. The interface according to claim 2 wherein the
5 synchronisation link is used to time stamp the reception time of the user data link.
11. The interface according to claim 6 wherein a hardware reset is encoded in the processor based link layer 1 protocol as a code violation.
- 10 12. The interface according to claim 5 wherein transmission of parity bits is suspended during stream identity transmission.
13. The interface according to claim 4 wherein the uplink data format consists of a fast changing mantissa and a slow
15 changing exponent.
14. A separate backup unit for the interface transmission part of the radio transmission part to allow transmission of a POWER_FAILED signal to the RAN part.
15. A link for transmitting the status of the lower layer of
20 the interface.
16. The interface according to claim 2 where the uplink interface serialiser is controlled by the synchronisation link.